

# Agricultural Construction Skills

Valid KY Course # 010241

**Course Description:** Prepares students to construct and maintain agricultural structures and equipment. Develops basic skills such as: tool identification, interpreting plans, calculating a bill of materials, electrification, carpentry, welding, metal fabrication, plumbing, and masonry. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program. This course may be extended to two credits offered on a two-hour basis provided that instruction is enhanced with laboratory experience, project construction, and in-depth skill development.

NATIONAL AFNR STANDARDS	Content/Process statements followed by # codes in <b>Bold = KOSSA Standards, <i>Italic = Academic Expectations</i></b>
<p>CS.03</p> <p>PST.02</p> <p>PST.02</p> <p>PST.02</p> <p>PST.02</p> <p>PST.01</p> <p>PST.04</p> <p>PST.05</p> <p>PST.04</p>	<p><b>Students will:</b></p> <ul style="list-style-type: none"> <li>demonstrate employability and social skills relative to the career cluster. <b>AA 001, AA 004, AA 006, AA 007, AA 008, AA 010, EA 001-EA 013, EB004, EC 005, EC 006, EC 009, EC 010, ED 002, ED 003; 1.1, 2.36, 2.38</b></li> <li>demonstrate safe usage of hand woodworking and metal working tools. <b>AA001, EA 013, OD 002, OE003, OE004; 2.3, 2.30, 2.37</b></li> <li>demonstrate safe usage of portable and stationary power machines. <b>AA001, EA 013, OD 002, OE003, OE004; 2.3, 2.30, 2.37</b></li> <li>employ safe usage of electric arc welding techniques and machines. <b>AA001, EA 013, OD 002, OE003, OE004; 2.3, 2.30, 2.37</b></li> <li>employ safe usage of gas heating, cutting, welding, and brazing techniques and equipment. <b>AA001, EA 013, OD 002, OE003, OE004; 2.3, 2.30, 2.37</b></li> <li>use plumbing tools and fixtures. <b>OC002; 2.1, 2.2, 2.37</b></li> <li>utilize tools, techniques, and formulas for concrete construction. <b>AA001, AB002, AB 004, AB 005, AB 006, AB 007, AB 008, OC 002, OE 004, OL008; 2.3,2.8,2.09,2.10</b></li> <li>demonstrate the basic principles of electricity. <b>OH 003, OL002, OL003, ON001, OM001; 2.1,2.2,2.3,2.5</b></li> <li>select and utilize proper painting materials and tools. <b>OC 002, OL004, OL005; 2.1,2.3,2.8.2.9</b></li> </ul>

PST.04	<ul style="list-style-type: none"> <li>develop project plans including plans and bill of materials for agricultural project construction. <b>OI004, OK002, OL 004;</b> 2.1,2.3,2.8,2.9</li> </ul>
PST.05	<ul style="list-style-type: none"> <li>relate the influence of agricultural mechanics industry on globalized production. <b>ON005;</b> 2.19,2.20</li> </ul>
ABS.03	<ul style="list-style-type: none"> <li>maintain records on supervised agricultural experience program and be able to summarize and analyze results in making financial decisions. <b>AB 001, AB 002, EC 002, EC 003;</b> 1.11, 2.13, 2.18</li> </ul>
CS.01	<ul style="list-style-type: none"> <li>utilize activities of FFA as an integral component of course content and leadership development. <b>AA 013, AA 014, AA 015;</b> 1.12, 2.16, 2.37</li> </ul>
<b>CONNECTIONS</b>	
<ul style="list-style-type: none"> <li>PROGRAM OF STUDIES – REVISED 2006</li> <li><b>KENTUCKY OCCUPATIONAL SKILL STANDARDS (KOSSA) above are from the Ag Power, Structural, Tech Systems</b></li> <li><i>ACADEMIC EXPECTATIONS</i></li> <li>SECRETARY’S COMMISSION ON ACHIEVING NECESSARY SKILLS (SCANS)</li> <li>FFA CONNECTIONS: Agricultural Mechanics CDE, Job Interview CDE, Agricultural Mechanics Design and Fabrication Proficiency and Agricultural Mechanics Repair and Maintenance Proficiency</li> </ul>	